VOL. 5, No. 9 SEPTEMBER 1951

CHRONICLE OF THE WORLD HEALTH ORGANIZATION

CONTENTS

	Page
New International Sanitary Regulations	223
Alcoholism : a public-health problem	231
Eighth session of Executive Board	236
Evolution of mortality in Europe during the twentieth century	239
Notes and News	
WHO/UNICEF tuberculosis projects	246
Malaria-control teams	248
Yaws control in Indonesia	249
Biological standardization	251

RECENT AND FORTHCOMING MEETINGS

1951	
8-30 January	WHO Executive Board : Standing Committee on Administration and Finance, Geneva
22 January-5 February	WHO Executive Board, seventh session, Geneva
30 January	Léon Bernard Foundation Committee, Geneva
9 April-4 May	WHO Special Committee to consider the Draft International Sanitary Regulations prepared by the Expert Committee on International Epidemiology and Quarantine, Geneva
10-17 April	Joint FAO/WHO Expert Committee on Nutrition, second session, Rome
19-28 April	WHO Expert Committee on the International Pharmacopoeia, eighth session, Geneva
30 April-1 May	WHO Expert Committee on the International Pharmacopoeia, Subcommittee on Non-Proprietary Names, second session, Geneva
7-25 May	Fourth World Health Assembly, Geneva
18 May	WHO Regional Committee for the Western Pacific, first session, Geneva
28-29 May	WHO Consultative Committee for Europe, first session, Geneva
1-18 June	WHO Executive Board, eighth session, Geneva
30 July-4 August	WHO Expert Committee on Insecticides, third session, Savannah, Ga.
3-5 September	WHO Consultative Committee for Europe, second session, Geneva
18-21 September	WHO Regional Committee for the Western Pacific, second session, Manila
20-25 September	WHO Regional Committee for South-East Asia, fourth session, Rangoon
24-27 September	WHO Regional Committee for Africa, first session, Geneva
15-20 October	WHO Expert Committee on Environmental Sanitation, second session, Geneva
15-20 October	WHO Expert Committee on Mental Health, Alcoholism Subcommittee, second session, Copenhagen
15-20 October	WHO Expert Committee on Nursing, second session, Geneva
22 October-4 November	European Seminar on Alcoholism, Copenhagen
29 October-3 November	WHO Expert Committee on the International Pharmacopoeia, ninth session, Geneva
November, tentatively	WHO Expert Committee on Cholera, first session, New Delhi
5 November	WHO Expert Committee on the International Pharmacopoeia, Subcommittee on Non-Proprietary Names, third session, Geneva
5-10 November, tentatively	WHO Expert Committee on Maternity Care, first session, Geneva
12-17 November	Second Seminar for European Sanitary Engineers, Rome
19-23 November	WHO Expert Committee on Drugs Liable to Produce Addiction, third session, Geneva
26-30 November	WHO Expert Committee on Trachoma, first session, Alexandria
December	WHO Expert Committee on Biological Standardization, fifth session, Geneva

NEW INTERNATIONAL SANITARY REGULATIONS

The adoption of the new International Sanitary Regulations (WHO Regulations No. 2), intended to replace all existing sanitary conventions, may be considered the major achievement of the World Health Organization to date. Despite the divergent interests involved, the difficulties caused by extreme differences in local health conditions throughout the world, the continually changing situations arising from the increasing rapidity of international communications, and, finally, the steady progress in our knowledge of the etiology and prevention of infectious diseases—all elements which make it difficult to crystallize international sanitary regulations at any given moment—the Regulations were unanimously adopted by the Fourth World Health Assembly. This unanimous acceptance is due largely to the satisfactory co-ordination which the World Health Organization was able to effect in the work of various committees of world-renowned experts and of several eminent jurists. The drawing-up of the new sanitary regulations was also facilitated by experience acquired in the application of previous sanitary conventions and by the views expressed by governments which had studied the draft regulations.

An evident desire to prevent, by the application of sanitary conventions, the introduction and spread of pestilential diseases—a desire which has aroused the interest of health administrations throughout the world for a long time, especially during the last 100 years—was at first doomed to failure because of lack of scientific bases. For example, the question of whether or not cholera was spread by water and foodstuffs was once settled by simple " vote ". Later, although increased knowledge of bacteriology gave sanitary conventions more solid bases, the slowness with which such conventions were ratified greatly diminished their value. Thus it took years for the 1912 and 1926 Conventions to be ratified by certain countries. While many countries adopted new conventions, others were still applying the former ones. The establishment of WHO makes possible an end to this chaos once and for all ; in fact, Article 22 of its Constitution provides that regulations adopted by the World Health Assembly shall enter into force after simple notification for all Member States, with the exception of those who, within a specified period, have made known either their reservations or their refusal.

For the present Regulations a procedure has been provided whereby, in a similar manner, they may be modified, if necessary, so as not to contain out-of-date clauses. In addition, if their application presents certain difficulties it will be possible to introduce new provisions.

History of the New International Sanitary Regulations

One of the first concerns of the WHO Interim Commission was to create, in 1947, expert committees to study the problems of epidemiology and quarantine and, in particular, the revision of the sanitary conventions. The meeting in Alexandria of a group of experts who were to examine the question of sanitary control of the Mecca Pilgrimage,[1] and the convening of an expert committee on quarantine in October 1947, at the time of the cholera epidemic in Egypt,[2] were among the first achievements along this line. The Interim Commission also set up an expert committee on international epidemic control to prepare a redraft of international sanitary legislation.[3] In addition, the Commission was, from the very beginning, concerned with the best means for ensuring regular and rapid dissemination of epidemiological information on pestilential diseases.[4]

In 1948 the First World Health Assembly decided that the committees on quarantine and epidemiology should be merged into a single body, called the " Expert Committee on International Epidemiology and Quarantine ",[5] which was to examine the existing sanitary conventions and combine them into a single set of regulations which would meet modern needs. From that time on, this expert committee met on various occasions [6] and kept in constant contact with other expert committees responsible for studying the progress made in knowledge concerning each of the " quarantinable " diseases : [7] plague, cholera, yellow fever, smallpox, typhus, and relapsing fever—the last becoming the object of quarantine measures for the first time. On the basis of all this work, draft sanitary regulations were drawn up. After having been submitted to WHO Member States for their observations, these regulations were examined in detail by a special committee, the establishment of which was decided upon by the Third World Health Assembly.[8]

Work of the Special Committee

The Special Committee to consider the Draft International Sanitary Regulations first met in Geneva on 9 April 1951 ; its meetings, numbering 40 in all, continued until 21 May. This committee, under the chairmanship of Dr. M. T. Morgan, former President of the Office International d'Hygiène Publique, brought together delegates from most of the Member States of

[1] *Chron. World Hlth Org.* 1947, **1**, 88
[2] *Chron. World Hlth Org.* 1947, **1**, 146
[3] *Chron. World Hlth Org.* 1947, **1**, 122
[4] *Chron. World Hlth Org.* 1948, **2**, 36
[5] *Chron. World Hlth Org.* 1948, **2**, 186
[6] *Chron. World Hlth Org.* 1949, **3**, 1 ; 1950, **4**, 46 ; 1951, **5**, 54
[7] Since the meeting of the Special Committee, this term has been applied to the diseases previously referred to as " pestilential ".
[8] *Chron. World Hlth Org.* 1950, **4**, 227

WHO, as well as representatives of the International Civil Aviation Organization, the International Air Transport Association, and the World Medical Association.

Two trends were apparent during the meetings of the Special Committee. In the belief that the regulations should restrict international traffic as little as possible, certain delegates were of the opinion that quarantine

FIG. 1. INTERNATIONAL SANITARY REGULATIONS

Left to right : Dr. M. T. Morgan, Chairman of the Special Committee ; Mr. N. M. Brilliant, of the United Kingdom Ministry of Health ; and Mr. D. C. Haselgrove, of the United Kingdom Ministry of Transport

measures should be kept to a minimum. This concept was supported by the principle that excessive quarantine barriers are not effective against the introduction of diseases and that States must base the prevention and eradication of quarantinable diseases on adequate public-health services. There was an opposing trend on the part of delegates from countries whose populations are particularly subject to yellow fever and cholera to want provisions against these diseases reinforced. It was possible to reconcile these viewpoints to a considerable extent. In any case, as was stated by Dr. Morgan, the Regulations will be progressively amended with advances in science and the acquisition of experience.[9]

Reports of subcommittees and working parties, notes presented by delegations regarding various questions relative to the Regulations, and each article of the Regulations themselves were carefully examined during

[9] *Chron. World Hlth Org.* 1951, 5, 179

the meetings of the Special Committee. (A summary of the discussions which took place is given later.) In addition to the final draft of the Regulations, ten draft resolutions concerning them were submitted to the Fourth World Health Assembly by the Special Committee.

Analysis of the International Sanitary Regulations

The Regulations, as they were finally adopted, comprise ten parts. The first three deal with definitions, notifications, epidemiological information, and sanitary organization. The two following parts include general sanitary measures applicable to all the quarantinable diseases and provisions relative to each of them in particular. The other parts deal with sanitary documents, sanitary charges, and various provisions, final and temporary, with regard to the application of the Regulations. A series of appendices give models of various documents : deratting and deratting exemption certificates, international certificates for vaccination or revaccination, and the Maritime Declaration of Health. Two special annexes relate to the sanitary control of the Mecca Pilgrimage and to the standards of hygiene and comfort with which pilgrim ships must comply.

Scope and limits of the Regulations

The Regulations stipulate that the measures authorized constitute the maximum which a State may demand, with respect to international traffic, for the protection of its territory against epidemic diseases. This provision allows no doubt as to the fact that any measure which goes beyond the limits prescribed would constitute, in fact, a violation of the Regulations. However, clauses have been provided so that special measures may be applied in case of emergency, but these exceptions refer only to epidemic diseases classified as " non-quarantinable ".

Discussions Concerning the Quarantinable Diseases

Among the quarantinable diseases, yellow fever and cholera were particularly subject to long discussions. In view of the progress made in the prevention of typhus and relapsing fever, certain delegations felt that these diseases were now relatively less important and even suggested that they be removed from the list of quarantinable diseases. This proposal was rejected, however, since the absence in the Regulations of provisions dealing with these two diseases might lead to the introduction of excessive measures concerning them in certain national legislations.

Smallpox

A very important decision was taken with respect to smallpox : a vaccination certificate may be required of every person making an inter-

national voyage, even if he does not come from an area infected with smallpox. This decision is based on the principle that everyone should aid in the prevention of this disease and that it is not sufficient to take measures solely with regard to persons coming from infected areas and, consequently, solely with regard to such areas ; non-vaccinated persons travelling to areas where smallpox is still prevalent may, through their negligence, encourage the outbreak of epidemics.

Yellow fever

Article 74 of the Regulations provides that, in a yellow-fever receptive area, the health authority may demand the isolation of a person making an international voyage and coming from an infected local area who is unable to produce a valid certification against yellow fever, until his certificate becomes valid, or until a period of six days has elapsed since the date of the last possible exposure to infection (whichever period is the shorter). This provision was discussed at length before it was adopted. For delegates of certain countries, such as India—which seems particularly susceptible to yellow fever—the six-day period appeared decidedly inadequate. Her representative envisaged the possibility that yellow fever might develop after vaccination, without producing the usual symptoms, and that its virus might circulate in the blood of the infected person for two or three days. There would thus be a danger that the infection might spread and cause a veritable catastrophe in India or in other Asian territories. The Indian delegate therefore wanted a greater margin of safety, a nine-day period for example, during which the traveller could be isolated and sheltered from mosquitos. However, in the opinion of Dr. Soper, Director of the Pan American Sanitary Bureau—who has devoted some twenty years to yellow-fever control—and of other delegates, yellow fever never appears in an infected person after six days, and the limitation of control measures to that period has never been responsible for an epidemic. The isolation period may therefore be fixed at six days.

The definition of yellow-fever endemic zones also gave rise to prolonged discussion. Among the quarantinable diseases yellow fever occupies a special place : it is the only one in which endemicity is clearly delineated. In addition, conditions in yellow-fever endemic zones are among those covered in the definition of " infected local areas " ; these zones are therefore subject to quarantine measures. According to the Regulations the definition of such zones may be based on the presence of *Aëdes aegypti* or another domiciliary vector, as well as on the persistence of the virus among wild animals. Because of vaccination campaigns and for other reasons, yellow-fever immunity in man, as detected by the mouse protection test, is found outside the limits of yellow-fever endemic zones ; consequently, this criterion cannot be used for defining such zones. A draft resolution

requesting a study and definition of technical criteria for delineating yellow-fever endemic zones was submitted to, and approved by, the Fourth World Health Assembly.

Cholera

According to the draft Regulations, persons coming from a local area infected with cholera who were not provided with a valid vaccination certification were either to undergo vaccination or to be placed under surveillance [10] for a five-day period, reckoned from the date of departure from the infected local area. The Egyptian delegation considered that vaccination alone was inadequate and that the vaccinated person should be placed under surveillance. This delegation thought that the development of immunity required at least seven days and that therefore the security given by vaccination could not be considered as absolute. It was decided to make provisions in the Regulations for the possibility of placing under surveillance, for five days, persons coming from an infected local area, even if they possessed a valid vaccination certificate, and of isolating those who did not possess one.

The question of the examination of stools or of rectal swabbing, measures which used not to be taken in the case of persons coming from infected local areas unless they exhibited symptoms of cholera, was also studied. According to certain delegates, the value of these measures is slight since even a person recovering from cholera excretes virulent vibrios for only a short period, rarely exceeding five days ; thus, examination of stools, particularly during sea voyages lasting at least five days, would have little significance. In the opinion of other delegates, however, the period during which vibrios are excreted may be longer, and the importance of germ carriers should not be underestimated. Persons with abortive or sub-clinical symptoms of cholera may be especially dangerous, and such cases can be discovered only by bacteriological examination. It was decided, therefore, that no one could be required to submit to rectal swabbing and that only passengers coming from an infected local area could be subjected to examination of stools during the incubation period of cholera and, even then, only if they showed symptoms suggestive of the disease.

Discussions Concerning General Provisions

Hygiene and sanitation of ports and airports

The draft Regulations set forth the ideal sanitary conditions with which ports and airports should comply as regards possibilities for deratting, disinsectization, isolation of infected cases, medical service, etc. On the

[10] By surveillance is meant the obligation of the person concerned to remain in touch with the health authority and to follow the instructions of the latter concerning him.

proposal of the British delegation, provisions concerning this part of the Regulations were considerably modified so as to lessen the rigidity of clauses referring to sanitation in ports and so as to make it possible to adapt the Regulations to conditions which actually exist in many ports and which are not apt to be improved in the near future.

The representative of the International Air Transport Association stressed the importance of safeguarding the health of crews of aircraft and thereby assuring steady flow of air traffic. In this connexion, there should be such a high standard of hygiene and sanitation, at least on the principal air-traffic routes, as to avoid any holding-up of traffic due to preventable diseases (dysentery, food poisoning and gastro-enteritis, malaria, etc.).

The Fourth World Health Assembly decided to establish with the International Civil Aviation Organization a joint committee on the hygiene of airports, which will draw up standards for sanitation as well as draft international conventions, or WHO supplementary regulations, on this subject.

Application of the Regulations

A proposal concerning the institution of an international sanitary council was submitted to the Special Committee. This council would be responsible for exercising general supervision over the operation of the Regulations and would regularly review their functioning, submitting a report to the Health Assembly and recommending any changes deemed necessary. Another proposal suggested the establishment of a judicial body which would have to deal with disputes arising from the application of the Regulations. Certain delegates rejected the idea of a permanent body, feeling that the Assembly could establish an appropriate committee which would meet from time to time as required. Experience has shown that almost all international disputes resulting from the application of the sanitary conventions can be smoothed out by the Director-General, only a very small proportion being submitted for settlement to the Expert Committee on International Epidemiology and Quarantine.

It was decided, therefore, to retain the mechanism employed thus far : the Director-General will have the task of settling disputes which may arise and, if need be, may call on an appropriate technical committee. The latter would be able, if necessary, to draw up supplementary regulations concerning diseases not covered by Regulations No. 2 and to present, as required, recommendations relative to practices and technical methods for aiding health administrations in the application of the Regulations. The committee would consist of a nucleus of epidemiologists and quarantine specialists to which would be added, according to the questions on the agenda, experts on the hygiene of ports and airports, on international law,

and on maritime or aviation questions. The committee would have to be able to ensure the co-operation and technical aid of other expert committees and competent study-groups of WHO, particularly those concerned with epidemic diseases, insecticides, and environmental sanitation.

Non-quarantinable epidemic diseases

Although the Regulations apply specifically to the quarantinable diseases, it follows from the terms of some of the Articles that other epidemic diseases may also be subject to certain measures. Thus, free pratique may be refused for justifiable reasons, notably if the presence of other epidemic diseases on board an aircraft or ship is suspected. The committee felt that certain other epidemic diseases were of such importance that it would perhaps be necessary eventually to draw up new international regulations dealing with them. Several delegates were of the opinion that the invasion of their countries by diseases such as malaria was a danger quite as serious as that represented by the quarantinable diseases.

Among the questions which the Expert Committee on International Epidemiology and Quarantine will have to study are measures to be taken with respect to isolated communities in order to protect them against diseases—measles, for example—which, although commonplace elsewhere, may cause high morbidity and mortality among them.

Mecca Pilgrimage

Five meetings were held under the chairmanship of Dr. Morgan to discuss the sanitary measures relating to the Mecca Pilgrimage which constitute Annex A of the Regulations. Because of the special epidemiological problems which it raises, the Pilgrimage is always subject to stricter provisions than those applied to ordinary international traffic. The special regulations will probably be abolished in the future, and the Pilgrimage will then be subject to the same measures as ordinary traffic.

Since a certain number of pilgrims travel to the Hedjaz by air, special provisions had to be drawn up with regard to aircraft. The standards with which ships and aircraft bearing pilgrims must comply have been assembled in Annex B of the Regulations.

Pilgrims are obliged to be vaccinated against cholera and smallpox, and a valid certificate of vaccination against yellow fever will also be required from those coming from a local area infected with yellow fever or from a yellow-fever endemic zone.

Beginning with the 1952 Pilgrimage season, the Kamaran Quarantine Station, which has thus far been responsible for inspecting pilgrim ships going to the Hedjaz by a route other than the Suez Canal, will be closed ; its functions will be taken over by the quarantine station now under construction at Jeddah. The Government of the United Kingdom will supervise the operation of the Kamaran Station during the 1951 Pilgrimage.

Publication of the Regulations and the Reports of the Special Committee

The new International Sanitary Regulations have been published, with an index, in *World Health Organization : Technical Report Series*, No. 41. The minutes of the meetings of the Special Committee, the Regulations themselves, the basic documents used by the Special Committee, and the reports of the Subcommittee on the Mecca Pilgrimage and of the Legal Subcommittee will be published in *Official Records of the World Health Organization*, No. 37.

ALCOHOLISM : A PUBLIC-HEALTH PROBLEM

Recognition of alcoholism as a public-health problem, rather than as a social disorder subject to reform by legal and other non-medical measures, is steadily increasing. When the Health Committee of the League of Nations tried in 1928 to deal with alcoholism as part of a worldwide health problem, its efforts were hampered by lack of sufficient understanding, on the part of the general public, of the medical and public-health aspects of alcoholism. In the past ten or twelve years, however, noteworthy progress has been made in bringing alcoholism into the realm of scientific research and in treating it as a disease affecting the mental and physical health of a considerable portion of the adult population of many countries. This progress enabled the Subcommittee on Alcoholism of the WHO Expert Committee on Mental Health, when it met in December 1950,[1] to base its discussions on objective data and to recommend to WHO and to national health-administrations practical measures for preventing and treating alcoholism. The report on this subcommittee's discussions and recommendations has recently been released by WHO and is available as No. 42 in the *World Health Organization : Technical Report Series.*

---

[1] The following took part in this session :

Members :

Dr. S. Betlheim, University Neuro-Psychiatric Clinic, Zagreb, Yugoslavia

Professeur L. E. Dérobert, Professeur agrégé à la Faculté de Médecine de l'Université de Paris, France (*Vice-Chairman*)

Dr. R. Fleming, Director, Alcoholic Clinic, Peter Bent Brigham Hospital, Boston, Mass., USA (*Rapporteur*)

Dr. G. A. R. Lundquist, Assistant Professor of Psychiatry, Chief Physician, Langbro Hospital, Stockholm, Sweden (*Chairman*)

Professeur M. Müller, Professeur de Psychiatrie, Médecin-Directeur de l'Hôpital psychiatrique de Münsingen, Berne, Switzerland

Dr. M. Schmidt, Chief Psychiatrist, Institute of Forensic Psychiatry, Department of Police, Copenhagen, Denmark

Secretariat :

Dr. G. Hargreaves, Chief, Mental Health Section, WHO (*Secretary*)

Professor E. M. Jellinek, WHO Consultant on Alcoholism ; Dean, Institute of Alcohol Studies, Texas Christian University, Fort Worth, Texas, USA (unable to attend owing to illness)

Dr. P. O. Wolff, Chief, Addiction-producing Drugs Section, WHO

Definition of Terms

The subcommittee defined "alcoholism" as "any form of drinking which in its extent goes beyond the traditional and customary 'dietary' use, or the ordinary compliance with the social drinking customs of the whole community concerned, irrespective of the etiological factors leading to such behaviour and irrespective also of the extent to which such etiological factors are dependent upon heredity, constitution, or acquired physiopathological and metabolic influences".

From a clinical point of view, there are three recognizable stages in the development of alcoholism, each with a different significance with regard to prognosis and treatment. In the first stage, termed "symptomatic drinking", alcohol is taken as an anodyne for a current physical, psychological, or social problem. This use of alcohol may create further difficulties which lead, in their turn, to further excessive drinking. The condition of true alcoholism thereby is established, and the drinking passes into the second, or "addictive", stage.[2] The third stage is reached when organic disease or psychic deterioration appears.

Other relevant terms discussed by the Subcommittee on Alcoholism included :

1. tolerance, which was described as the level of the threshold dose of alcohol for a given individual beyond which impairment of functional efficiency occurs.

2. cured, a term not to be used since, once an individual has reached the addictive stage in drinking, he can never expect to become again a moderate drinker—which makes "cure", in the strict sense of the word, impossible. The subcommittee suggested that, in assessing the efficacy of treatment, reference should be made to the percentage of cases "successfully arrested" rather than "cured". It emphasized that cases of addictive alcoholism should be considered successfully arrested only if abstinence has continued for at least two or more years.

Need for Statistical Information

The extreme variations in the social drinking customs and habits in different countries, the types of beverages consumed, and the average level of consumption in different populations—all these factors make statistical evaluation of the incidence of alcoholism very difficult. Such statistical

[2] The Subcommittee on Alcoholism noted with interest, in this connexion, the definition of drug addiction adopted by the Expert Committee on Drugs Liable to Produce Addiction : "Drug addiction is a state of periodic or chronic intoxication, detrimental to the individual and to society, produced by the repeated consumption of a drug (natural or synthetic). Its characteristics include : (1) an overpowering desire or need (compulsion) to continue taking the drug and to obtain it by any means ; (2) a tendency to increase the dose ; (3) a psychic (psychological) and sometimes a physical dependence on the effects of the drug." (*World Hlth Org. techn. Rep. Ser.* 1950, **21**, 6 ; see also *Chron. World Hlth Org.* 1950, **4**, 76)

information is urgently needed, however, and the Subcommittee on Alcoholism discussed this aspect of the problem at considerable length. It outlined several steps for compiling national statistics on the incidence of alcoholism : (1) accurately assessing the mortality caused by cirrhosis of the liver and by acute or chronic alcoholism with complications ; (2) devising means of assessing the extent of morbidity caused by alcoholism accompanied by psychoses, neurological disorders, etc. ; and (3) ascertaining the numbers of addictive drinkers not yet showing irreversible organic damage. These last two steps are particularly difficult and depend, to a great extent, upon the provision of treatment facilities for alcoholism in its various stages, since such facilities provide a means of discovering and recording cases. It is obvious, for example, that there is a far better opportunity for obtaining reasonably accurate information on the incidence of the earlier stages of alcoholism in Sweden, where there is a widespread social organization for the rehabilitation of the alcoholic, than there would be in a country where treatment facilities are provided only for individuals in the advanced stages of the disorder.

The subcommittee recommended that WHO arrange for the very few experts who have studied the statistical problems of alcoholism to meet and prepare background information for its next session. It examined the formula developed at Yale University by Dr. E. M. Jellinek for predicting—on the basis of population, mortality statistics, and other data—the number of chronic alcoholics with complications likely to be found in the different states of the USA. In appendices to its report the subcommittee gives a summary of the principles of the Jellinek formula and estimates of the number of alcoholics with complications in different countries as determined by applying this formula.

Treatment of Alcoholism

As noted previously, the prognosis and treatment of alcoholism differ according to the stage of development which the addiction has reached. In the first, or symptomatic, stage, it may be possible to deal psychiatrically with the underlying cause of the drinking. If this is successfully accomplished, the patient can resume moderate, controlled drinking such as may have been his practice before the alcoholic episode. Once the second, or addictive, stage is reached, however, it is impossible for the patient again to become a moderate drinker; and therapy must aim at complete abstinence.

Facilities

In well-developed countries treatment facilities are usually available for advanced cases of alcoholism, especially for those which show permanent

organic or psychological damage. The real need is for out-patient dispensary services to treat cases of alcoholism in the earlier stages. Such a dispensary is best situated in a well-equipped general hospital or, alternatively, may exist as an independent institution ; it should *not* be associated with a psychiatric hospital predominantly concerned with the care of the psychoses. Whatever its exact situation, it should have the orientation of a medical institution, with all that is implied in a doctor/patient relationship. In such a setting ambulatory treatment is effective in a high proportion of cases of early alcoholism, and the question of hospitalization seldom arises. The clinic for alcoholics should preferably be under the direction of a psychiatrist particularly interested in the treatment of alcoholism ; next best would be a general physician who is truly interested in the disorder.

In recommending the establishment of adequate networks of dispensary services in general hospitals for the ambulatory treatment of alcoholism in its earliest stages, the Subcommittee on Alcoholism pointed out that such services could, with the use of existing facilities, be developed at a very small cost, and that not only would they be valuable for treating alcoholics but would also offer opportunities for both research and teaching.

Public-health services should, in addition to developing treatment services for cases of early alcoholism, assist in the improvement of the medical and scientific standards of the work of residential institutions for the more advanced cases. Non-medical personnel directing such institutions should be specially trained to understand the problems of alcoholism, and their work should be carried out under medical supervision.

Methods

Research is needed to determine whether psychological or physio-pathological factors are the basis of addictive drinking. Although recent studies have indicated that the addictive phase of alcoholism may have a physical basis, of a constitutional nature, psychotherapy is indispensable in its treatment since the excessive symptomatic drinking which is a pre-requisite for addictive drinking is psychogenic or sociogenic, or both. Psychotherapy will, in most cases, need to be supplemented by the type of aid which a social worker can supply.

Certain drugs may prove to be a valuable adjunct to psychological and social therapy. Chief among these is tetraethylthiuramdisulphide, which causes a severe somatic reaction when the patient drinks alcoholic beverages after having been given a maintenance dose of the drug. This preparation should be available only to the medical profession and should preferably be employed only on cases in which continued supervision is possible. In more advanced cases of addictive drinking, other techniques such as the various forms of " aversion " therapy—based on the use of apomorphine or emetine—may be more valuable. Hormones such as ACTH and Cor-

tisone have been reported to be effective in treating delirium tremens, acute alcoholic intoxication, and even Korsakoff psychosis.

Additional Problems

Education

The Subcommittee on Alcoholism called attention to the lack of adequate education on alcoholism in the training of the physician, the nurse, and the medical social-worker and recommended the compulsory inclusion of this subject in relevant curricula.

Scientific information

Research on, and treatment of, alcoholism are handicapped by the " comparative isolation of most specialists working in this field ". WHO could help to remedy this situation by preparing and publishing classified bibliographies of the literature on alcoholism and by making available to important centres in different regions sets of the " Abstract Archive of the Alcohol Literature " which exist at Yale University. Other ways in which the Organization might promote the dissemination of information on alcoholism, as recommended by the committee, include : (1) fostering the creation of a technical, non-governmental, international organization for uniting professional groups and individual experts working on the problem of alcoholism ; (2) sponsoring a travelling study-group on alcoholism to review and report on recent developments in the early treatment and social control of the disorder ; and (3) collaboration in holding short courses for individuals professionally concerned with the problem of alcoholism.

Voluntary organizations

The Subcommittee on Alcoholism noted the work of lay societies which seek to aid the alcoholic in becoming abstinent, particularly that of " Alcoholics Anonymous ", an organization in the USA which many physicians concerned with the treatment of alcoholism consider to be " the most hopeful social development which has taken place in the handling of this disorder ". Although it is doubtful whether such an organization could be transplanted without modification to communities differing in culture pattern from those in which it originated, the fundamental principle of the " Alcoholics Anonymous "—help to other alcoholics by those who have successfully overcome the disorder and become abstinent—might well be applied by voluntary societies in other settings.

EIGHTH SESSION OF EXECUTIVE BOARD

The WHO Executive Board met for its eighth session from 1 to 8 June 1951. Professeur J. Parisot, Dean of the Medical Faculty of Nancy, France, was elected Chairman ; other officers were Dr. A. L. Bravo and Dr. J. N. Togba, Vice-Chairmen, and Dr. W. A. Karunaratne and Dr. N. Karabuda, Rapporteurs.

Regional Organizations

The Board authorized the establishment of a Regional Organization for Africa, on the basis of the provisions of Article 44 (*b*) of the Constitution. Selection of the site for a regional office will be made after the regional committee has met and the United Nations has been consulted.

The Director-General was requested to contact Member States in Europe regarding the establishment of a nuclear regional office in Geneva and the immediate constitution of a regional organization. It was recommended that European Members should meet in early Autumn 1951, either as a consultative committee or as a regional committee, to discuss programme and budget proposals for Europe for 1953.

Dr. I. C. Fang was appointed Regional Director for the Western Pacific, as of 1 July 1951. The Regional Office will be located in Manila, provided approval is given by the United Nations and a satisfactory host agreement is concluded with the Government of the Philippines.

Epidemiological Problems

Certain questions arose subsequent to the adoption at the Fourth World Health Assembly of the new International Sanitary Regulations (WHO Regulations No. 2).[1] The Executive Board requested the Director-General (1) to ask suitable experts to prepare WHO sanitary regulations to cover the control of insect vectors of malaria in international traffic by air, and (2) to consult expert advisory panels and committees dealing with the quarantinable diseases concerning the technical adequacy of the International Sanitary Regulations, following which he may, if necessary, recommend amendments to the Regulations to the Expert Committee on International Epidemiology and Quarantine. It was suggested that this committee be convened in March 1952 to consider, among other matters, any rejections and reservations to the Regulations which might have been made by Member States.

The Director-General was instructed to communicate with the Secretary-General of the International Civil Aviation Organization (ICAO) concerning

[1] See page 223.

the desirability of setting up a joint expert committee on sanitation standards for airports, with a view to preparing international regulations or recommendations on this subject.

The Board approved the exclusion of British Somaliland from the African endemic yellow-fever area.

Expert Groups

The Executive Board noted, and authorized publication of, the reports of the Expert Committee on the International Pharmacopoeia (eighth session), its Subcommittee on Non-proprietary Names (second session), the Joint WHO/FAO Expert Committee on Nutrition, and the Alcoholism Subcommittee of the Expert Committee on Mental Health.

Alcoholism was given particular attention : the Director-General was requested (1) to make budgetary provisions for a meeting in 1953 of the Expert Committee on Drugs Liable to Produce Addiction, for consideration of alcoholism from this aspect ; (2) to consider publishing a classified bibliography on alcoholism ; (3) to study the possibility of making available to important libraries sets of the " Abstract Archive of the Alcohol Literature ", which are at Yale University, submitting proposals and estimates regarding this project to the ninth session of the Board ; and (4) to bear in mind the value of international courses and travelling study-groups on alcoholism when framing future proposals for the Organization's mental health programme. A second meeting on alcoholism by the Expert Committee on Mental Health was authorized for 1951.

It was decided that, instead of convening a special subcommittee on the chemotherapy of tuberculosis, as had been suggested, this subject should be placed on the agenda of the Expert Committee on Tuberculosis which is to meet in 1952.

The Director-General was requested to make provisions for convening an expert committee on rheumatism in 1953.

The Executive Board approved the arrangements being made to convene, late in 1951, an expert committee to advise ILO on problems relative to health and social insurance.

Other Decisions

The level of expenditure for 1951 was raised to $6,497,401 to allow supplemental budgets of $245,344 for relief to the civilian population in Korea and $20,000 for assistance to refugees in Turkey.

The Director-General was authorized to appropriate $30,000 for medical supplies to assist in combating epidemics likely to arise as a result of the acute famine in the State of Bihar, India.

Co-operation with the United Nations was noted with regard to studies on population problems and the Draft Covenant on Human Rights.

The Board decided that the Fifth World Health Assembly should be held in Geneva, beginning on 5 May 1952. Subjects of the technical discussions at the Assembly will be (1) the economic value of preventive medicine, and (2) methods of health protection for local areas, as determined by the health, social, and economic needs of those areas. It was recommended that, for financial reasons, no action should be taken at the present time to make budgetary provisions for holding the sixth and future Assemblies away from Headquarters.

The Executive Board will meet for its ninth session on 21 January 1952 in Geneva.

MEMBERSHIP OF THE EXECUTIVE BOARD

The designating country is given in parentheses after each member's name. Newly designated members are indicated by an asterisk (*).

Dr. A. L. Bravo, Executive Vice-President, Compulsory Social Insurance Fund, Santiago (Chile) (*Vice-Chairman*)

* Professor S. Briskas, Professeur agrégé à la Faculté de Médecine de Paris (Greece)

Professor G. A. Canaperia, Chief Medical Officer, Office of the High Commissioner for Hygiene and Public Health, Rome (Italy)

Dr. S. Daengsvang, Deputy Director-General, Department of Public Health, Bangkok (Thailand)

Dr. C. L. González, Director of Public Health, Ministry of Health and Social Welfare, Caracas (Venezuela)

* Dr. S. Hayek, Director, Epidemiological Service and International Health Relations, Ministry of Health, Beirut (Lebanon)

Dr. J. A. Höjer, Director-General, Royal Medical Board, Stockholm (Sweden)

* Professor F. Hurtado, Professor of Paediatrics, School of Medicine, University of Havana (Cuba)

Dr. H. Hyde, Medical Director, US Public Health Service, Washington, D.C. (United States of America)

Dr. M. Jafar, Director-General of Health, Karachi (Pakistan)

Dr. N. Karabuda, Deputy Under-Secretary, Ministry of Health and Social Welfare, Ankara (Turkey)

* Dr. W. A. Karunaratne, Medical Officer of International Health, Department of Medical and Sanitary Services, Colombo (Ceylon)

* Professeur M. De Laet, Secrétaire général du Ministère de la Santé publique et de la Famille, Brussels (Belgium)

Dr. M. D. Mackenzie, Principal Medical Officer, Ministry of Health, London (United Kingdom)

Dr. R. G. Padua, Under-Secretary of Health, Manila (Philippines)

Professor J. Parisot, Doyen de la Faculté de Médecine de Nancy (France) (*Chairman*)

* Dr. J. N. Togba, Director of Public Health and Sanitation, Monrovia (Liberia) (*Vice-Chairman*)

The member designated by El Salvador was absent.

EVOLUTION OF MORTALITY IN EUROPE DURING THE TWENTIETH CENTURY

A study of a new aspect of the evolution of mortality in Europe during the past fifty years has just been made by Dr. M. Pascua, Director of the WHO Division of Health Statistics, in the *Epidemiological and Vital Statistics Report*.[1]

Mortality figures, by sex and age-group, were analysed previously.[2] The author now undertakes to classify the statistical data according to cause of death. The first part of this study—which is briefly summarized here—is devoted to acute diseases of an infectious nature : typhoid and paratyphoid fevers, scarlet fever, whooping cough, diphtheria, measles, malaria, smallpox, and typhus. Tuberculosis and cancer as causes of death will be dealt with in parts 2 and 3 of the study, which will be published later.

When analysing national data for the purpose of comparison on the international level, the statistician is confronted with difficulties and numerous discrepancies. The former are due to the relative indicative value of the information concerning population figures and the latter to the lack of uniformity in the notification of causes of death and in their classification. For example, during the past fifty years, five different lists of causes of death have been brought into use by several of the countries studied. Progress in medical diagnosis of certain diseases, which has naturally had some influence on the notification of causes of death, has not had the same effect in all countries. It must therefore be admitted that there is a certain relativity about all numerical and other conclusions. Certain general trends which are an expression of the facts as they actually exist can, however, be seen in the figures. The study covers the following countries : Belgium, Denmark, England and Wales, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Scotland, Spain, Sweden, and Switzerland.

Typhoid and paratyphoid fevers

The mortality figures for typhoid and paratyphoid fevers in England and Wales fell from 15 per 100,000 inhabitants in 1901 to 0.1 in 1949 ; in Italy they dropped from 36.1 to 5.4 during the same period. Considering all the countries studied, there are two different aspects of such decreases : in Belgium, England and Wales, the Netherlands, Sweden, and Switzerland it has been regular and progressive (with the exception of some outbreaks) ; in Spain, Italy, and Portugal, on the other hand, the decrease has been less pronounced and the death-rate has remained at a fairly high level (fig. 1).

[1] *Epidem. vital Statist. Rep.* 1951, 4, 36
[2] *Epidem. vital Statist. Rep.* 1950, 3, 30 ; *Chron. World Hlth Org.* 1950, 4, 349

In these latter countries typhoid and paratyphoid fevers are still among the important causes of death, and there is a definite need for sanitary reforms and more general education of the public. In Spain, the age-group from 15 to 25 years has been the most affected during the entire half-century. A significant recrudescence was observed from 1937 to 1942, with about 13,000 more deaths than during the five preceding years.

The decline in typhoid and paratyphoid fever death-rates—corresponding to a decrease in morbidity—may be attributed to improved sanitary conditions (better water supply, installation of sewerage systems, control of the supply of milk, ice-cream, etc.), progress in urbanization, public education, hospitalization of the sick, and more-effective medical care.

Scarlet fever

A decrease in the scarlet fever death-rates in all countries has been particularly marked during the past twenty years. At the beginning of the century the rate was 5 per 100,000 inhabitants in most countries ; during recent years the rate has fallen to 0.1 or 0.2. The decrease has been very great in the lower age-groups, particularly in the group from 1 to 5 years. The disease appears to have lost the malignant character which it still assumed in the past century and to have become relatively mild in western Europe. Vigilance is still necessary, however, since a renewal of the virulence of the causative organism is always possible, as has been shown by laboratory experiments and epidemiological observations.

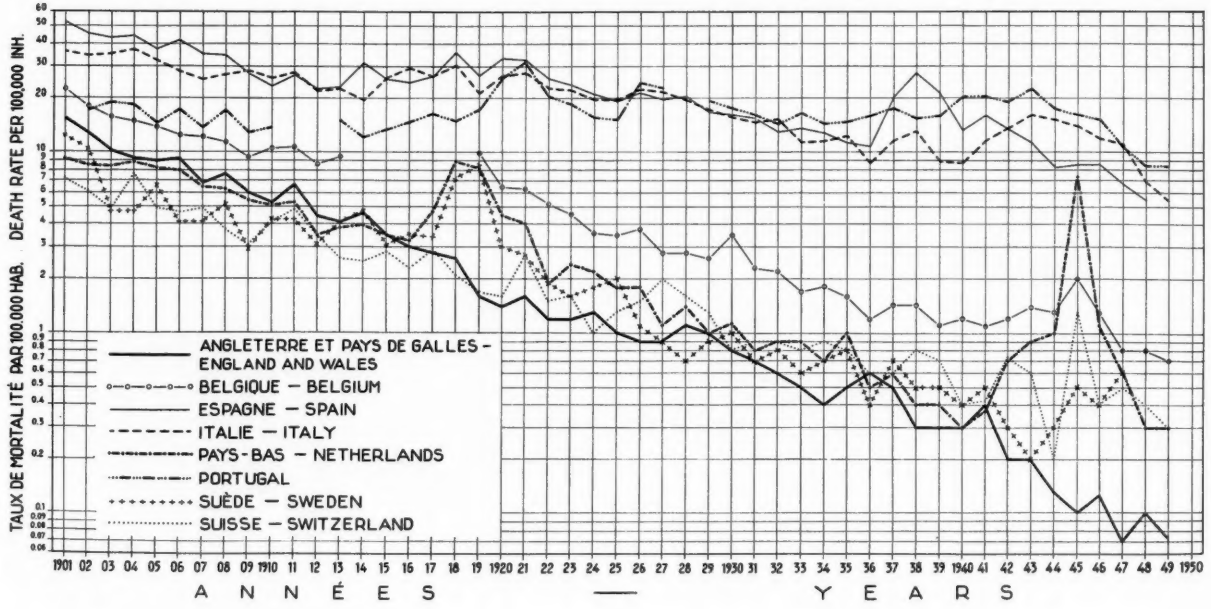
Whooping cough

The number of notified deaths from whooping cough in various countries corresponds fairly closely to the actual situation. Comparison of these figures therefore may be particularly instructive. A remarkable similarity is observed in a considerable lowering of general mortality due to whooping cough—with an analogous decrease in the age-group from 1 to 5 years (fig. 2). In Switzerland, for example, 846 deaths were notified in 1901 as against 101 in 1949, i.e., a mortality-rate of 15 to 25 per 100,000 inhabitants during the early years of the century and of 1 to 2 during recent years. It is difficult to determine the exact cause of the decrease in whooping-cough mortality-rates ; neither progress in public health nor vaccination (which has not been generally applied) can be credited with such a substantial decline. However, in spite of the relatively favourable situation, the importance of this disease as a cause of death in children should not be underestimated.

Diphtheria

From 1901 to 1930 mortality from diphtheria declined in most countries according to a regular and similar pattern. From 1930 on, the decrease

FIG. 2. MORTALITY FROM TYPHOID FEVERS, 1901-50


TAUX DE MORTALITÉ PAR 100.000 HAB. DEATH RATE PER 100,000 INH.
ANGLETERRE ET PAYS DE GALLES - ENGLAND AND WALES
BELGIQUE — BELGIUM
ESPAGNE — SPAIN
ITALIE — ITALY
PAYS-BAS — NETHERLANDS
PORTUGAL
SUÈDE — SWEDEN
SUISSE — SWITZERLAND
1901 02 03 04 05 06 07 08 09 1910 11 12 13 14 15 16 17 18 19 1920 21 22 23 24 25 26 27 28 29 1930 31 32 33 34 35 36 37 38 39 1940 41 42 43 44 45 46 47 48 49 1950
A N N É E S — Y E A R S

became more marked in certain countries (England and Wales, Sweden), whereas in others—Italy, for example—it remained more or less stable. It should be noted, however, that there was a recrudescence in 1942 and 1944 in Sweden and in the Netherlands (fig. 3).

The decrease in mortality has been particularly marked in the age-group from 1 to 5 years. At the beginning of the century nearly 500 infants died annually of diphtheria in England and Wales ; during recent years there have been only about 20 victims per year in this age-group.

Treatment of the disease by the Behring antitoxin, and preventive immunization—which have not been applied on an extensive scale—cannot explain the decline in the death-rate. Isolation and hospitalization of cases as well as the more frequent practice of tracheotomy may have contributed to the drop in the mortality figures but, on the other hand, it might be supposed that the growth of urban populations and the extension of towns would have augmented the risks of infection ; as a matter of fact, these factors have not counterbalanced the declining trend of the death-rate. Here also one is tempted to assume that there has been some change in the pathogenic power of the diphtheria bacillus, although no knowledge at all is available concerning any biological process which may bring about such a change.

Measles

Notification of cases of measles is unsatisfactory everywhere, and figures are completely lacking for many countries. The data available show no very marked reduction in morbidity, but the decline in mortality among infants and young children is quite striking ; in Germany, for example, in the age-group from 0 to 1 years it fell from about 250 per 100,000 live-born children in 1901 to about 40 in 1939. In England and Wales, whereas at the beginning of the century the annual number of deaths was about 10,000, during recent years the figure has been somewhere around 300.

Malaria

It is not necessary to stress the decline in malaria morbidity, which is commonly known. It is due chiefly to the preventive measures which have been adopted, in particular to the use, during recent years, of residual insecticides. The mortality figures also have shown a marked decrease. In Spain, 4,000 deaths were notified in 1901, i.e., a mortality-rate of 21 per 100,000 inhabitants ; in 1948 only 84 (0.3 per 100,000) were notified. In Italy, the 1901 mortality-rate was 41.7 per 100,000 inhabitants ; in 1949 it had fallen to 0.2 (101 deaths). However, there was a recrudescence during the years 1914-8, when the mortality was almost as high as at the beginning of the century.

Better use of the classical antimalarial drugs and application of new and very effective therapeutic substances may explain this regression.

FIG. 3. MORTALITY FROM WHOOPING COUGH, 1901-50

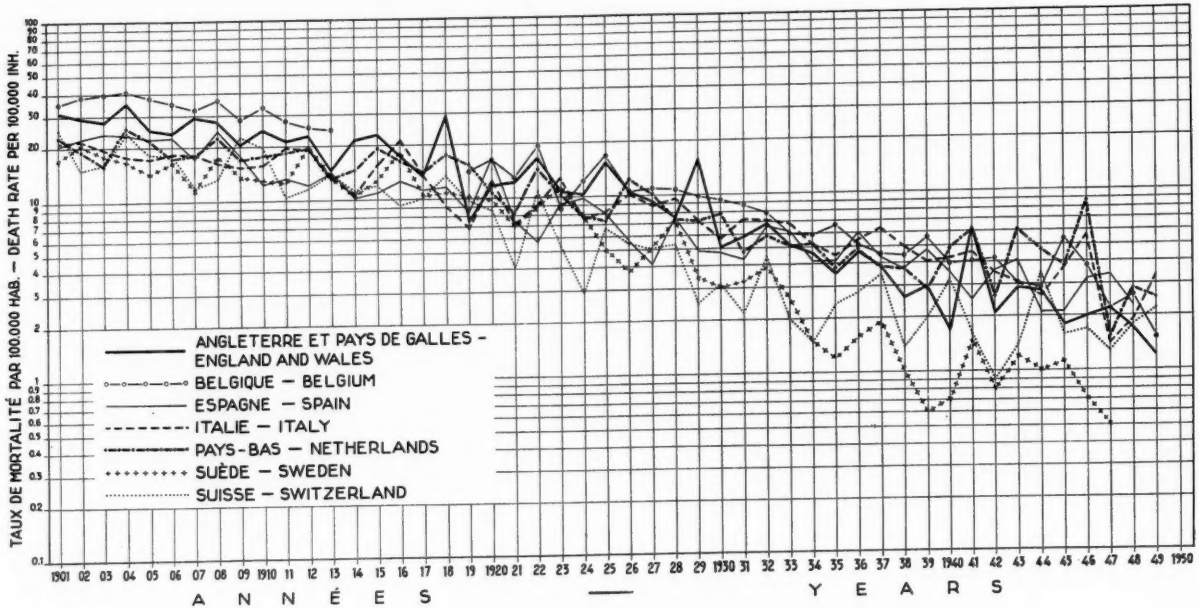
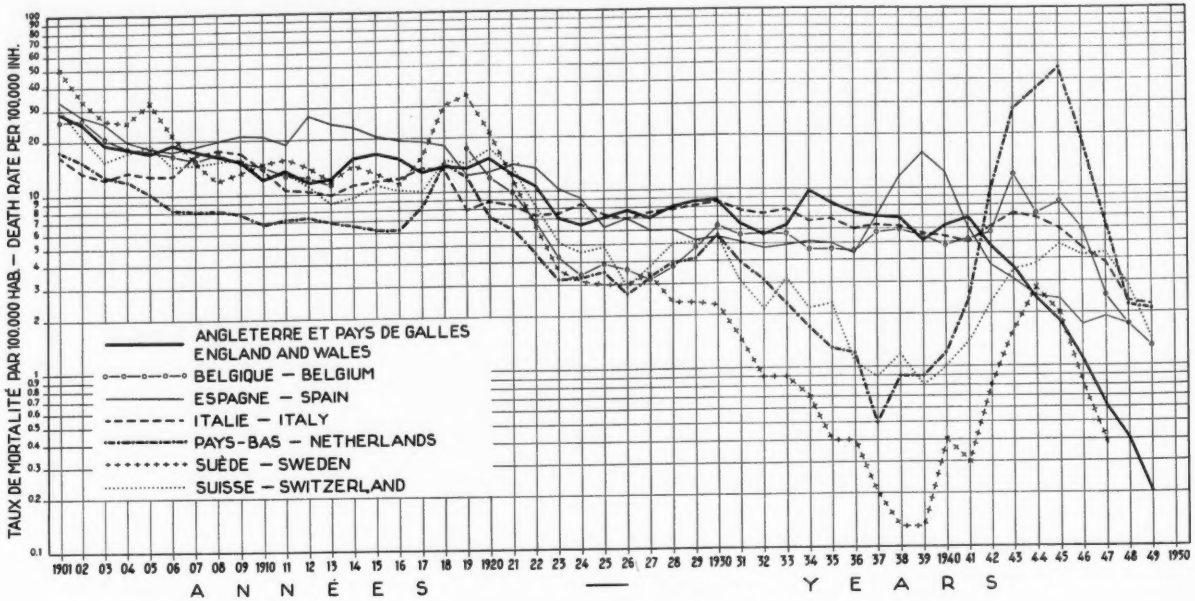

TAUX DE MORTALITÉ PAR 100.000 HAB. — DEATH RATE PER 100,000 INH.
ANGLETERRE ET PAYS DE GALLES - ENGLAND AND WALES
BELGIQUE — BELGIUM
ESPAGNE — SPAIN
ITALIE — ITALY
PAYS-BAS — NETHERLANDS
SUÈDE — SWEDEN
SUISSE — SWITZERLAND
1901 02 03 04 05 06 07 08 09 1910 11 12 13 14 15 16 17 18 19 1920 21 22 23 24 25 26 27 28 29 1930 31 32 33 34 35 36 37 38 39 1940 41 42 43 44 45 46 47 48 49 1950
A N N É E S — Y E A R S

FIG. 4. MORTALITY FROM DIPHTHERIA, 1901-50


TAUX DE MORTALITÉ PAR 100.000 HAB. — DEATH RATE PER 100,000 INH.
ANGLETERRE ET PAYS DE GALLES
ENGLAND AND WALES
BELGIQUE — BELGIUM
ESPAGNE — SPAIN
ITALIE — ITALY
PAYS-BAS — NETHERLANDS
SUÈDE — SWEDEN
SUISSE — SWITZERLAND
1901 02 03 04 05 06 07 08 09 1910 11 12 13 14 15 16 17 18 19 1920 21 22 23 24 25 26 27 28 29 1930 31 32 33 34 35 36 37 38 39 1940 41 42 43 44 45 46 47 48 49 1950
A N N É E S — Y E A R S

But the possibility of a natural decline of the disease must not be altogether discarded, since such phenomena have already been observed in the history of this endemic disease.

Smallpox

In general, there has been a considerable decrease in mortality from smallpox during the half-century. In Spain, for example, the figure fell from 29.7 per 100,000 inhabitants in 1902 to 0.0 since 1930 (with the exception of the years 1939-42, when there was a recrudescence). In 1947, 1948, and 1949 the mortality-rate was 0.0 per 100,000 inhabitants in Belgium, England and Wales, France, Germany, Italy, Spain, Sweden, and Switzerland. In most countries, annual deaths from smallpox have been very few during recent years.

It would seem justifiable to attribute the reduction in the smallpox death-rate throughout Europe to vaccination, which has been generally and systematically applied to whole populations. Vaccination has played a preventive role, on the one hand ; and, on the other, it has reduced the mortality among vaccinated persons who have contracted the disease. However, it cannot be ignored that vaccination has not been general in all countries, and that other factors, of an unknown nature, may have contributed to the lowering of the mortality-rate.

Typhus

The typhus epidemics which broke out in Italy in 1919 and in 1943-4, in Portugal in 1918-9, in Germany in 1915-9, and in Spain in 1941-3, after periods when mortality had been extremely low, confirm the well-established fact that typhus epidemics are closely associated with war, famine, and overpopulation. Thus, the death-rate in Portugal was 28.7 per 100,000 inhabitants in 1918, whereas it was 0.1 in 1916, 2.1 in 1920, and 0.0 in 1949. The recent application of DDT and present knowledge of the epidemiology of the disease make it improbable that there will be any serious epidemics in times of peace and security.

* * *

This study contains numerous tables and detailed mortality analyses. The reader who wants a more exact picture of the situation as shown by the figures should consult the original article.

Notes and News

WHO/UNICEF Tuberculosis Projects

Burma

A five-member WHO team has gone to Rangoon, Burma, to help organize an anti-tuberculosis service for which UNICEF is providing equipment and supplies. Team members are : Dr. B. N. Papanicolaou (Greece), senior adviser ; Dr. C. Vijil y Tardón (Chile), epidemiologist ; Dr. E. Nassau (United Kingdom), bacteriologist, on short-term loan from the WHO/UNICEF Tuberculosis Centre at Delhi, India ; Miss E. M. Astrup (Norway), laboratory technician ; and Mr. D. R. Ernborg (Sweden), x-ray specialist.

A new tuberculosis training and demonstration centre will be established which will be under the direction of Dr. Than Aung, head of the present tuberculosis clinic in Rangoon. The Burmese Government is to provide a " matching " team for the project which will include, in addition to Dr. Than Aung, a bacteriologist, an epidemiologist, and a trained tuberculosis nurse.

It is believed that tuberculosis is responsible for more deaths in Rangoon than any other single cause. It takes a particularly great toll among people below 20 years of age.

The aims of the new training and demonstration centre will be : (1) to provide a modern and effective tuberculosis dispensary and domiciliary service for Rangoon, with emphasis on home treatment ; (2) to train personnel in all phases of tuberculosis control for duty elsewhere in Burma ; (3) to set up in Rangoon a modern laboratory and x-ray equipment for the diagnosis of tuberculosis ; and (4) to initiate a scheme for the protection of schoolchildren and young people by BCG vaccination.

Costa Rica

A two-year programme which is being initiated in Costa Rica will endeavour to tuberculin-test 260,000 children and to vaccinate the non-reactors with BCG. This project will be integrated with the general tuberculosis services of the government, and it is planned to follow up cases of possible infection by means of x-ray examination.

One doctor and two nurses will go to Ecuador for three months of training and will, upon their return, train other teams in Costa Rica. UNICEF has allocated $38,000 for this programme, and the government will furnish supplies and services valued at approximately $55,000 for the two-year period.

Ecuador

The WHO/UNICEF tuberculosis-control project in Ecuador includes a BCG-vaccination campaign and expansion of existing tuberculosis services and facilities. UNICEF has allotted $300,000 for the BCG phase, in which WHO will help the government tuberculin-test 1,100,000 children and adolescents, inoculate non-reactors with BCG, and develop production facilities for BCG vaccine.

The actual testing and vaccination began in July 1950 in Guayaquil. In April of 1951, 27 national and 12 international team members were working together in the campaign, which is to continue for another year.

It is hoped that the laboratory in Guayaquil will be producing BCG vaccine by the end of 1951. In the meantime, the vaccine is being supplied from Mexico.

The objective of the general tuberculosis-control programme is to assist the Government of Ecuador in developing bacteriological diagnostic services, pulmonary physiology,

histopathology, and visiting nurse services. As these services are developed, they provide a training-ground for tuberculosis personnel from other Latin American countries.

UNICEF is furnishing supplies and equipment, at a value of $115,000, for this project. WHO, under the United Nations Technical Assistance Programme, is providing the services of a bacteriologist, a lung physiologist, a pathologist, and two public-health, tuberculosis nurses, at a total cost of $40,000. The Government of Ecuador is undertaking construction work and other expenses amounting to approximately $116,600.

El Salvador

Team personnel have been trained in Ecuador for a BCG-vaccination project in El Salvador, in which the goal is to test approximately 877,000 children in a two-year period, vaccinating non-reactors with BCG and following up by x-ray examination and bacteriological tests those who react positively to the tuberculin test.

During operations over about a seven-month period in San Miguel, 15,000 persons, in a population of approximately 22,000, were examined. In the BCG phase of the campaign, which began late in 1950, more than 4,000 persons were vaccinated.

UNICEF is providing $47,000 for this programme, and the Government of El Salvador is furnishing personnel, supplies, and services valued at about $57,000.

Jamaica

In Jamaica, a WHO/UNICEF tuberculosis-control project will aim to develop modern methods of tuberculosis control ; to tuberculin-test the population under 20 in urban areas and under 30 in rural areas (about 600,000 persons) ; to follow up the tests by radiographical and bacteriological tests ; to provide ambulatory treatment at rural health centres for the cases discovered, and hospitalization where necessary and possible ; to develop and extend the services of the present bacteriological tuberculosis laboratory ; and to train local professional and auxiliary personnel and, later, personnel from other Caribbean Islands, in modern methods of tuberculosis control. One doctor and two nurses have gone to Ecuador to study the BCG campaign there ; upon their return they will train three additional local teams.

UNICEF aid in this programme will amount to $113,000, and the Government of Jamaica will provide personnel, services, and facilities valued at about $157,000 over a two-year period.

Mexico

UNICEF has allocated $160,000 to help expand and standardize BCG-vaccine production at the BCG laboratory in Mexico City and to conduct a mass vaccination campaign. This project was begun with the aid of the Joint Enterprise in July 1950.

Formosa

Dr. O. A. Hagen (Norway) and Miss E. Friis (Denmark), experienced workers in BCG-vaccination projects, have gone to Formosa to direct a tuberculosis-control programme in which 800,000 children will be tested. Negative reactors will be vaccinated, and positive reactors will undergo x-ray examination—by miniature x-ray (70 mm), with subsequent large-film examination of suspected cases. Medical care and extra nourishment will be given to those who need them, and the more serious cases will be admitted to the 30-bed children's tuberculosis hospital, which has been equipped by UNICEF.

The WHO team plans to remain in Formosa for six months, during which time local teams will be trained to carry on the work.

Malaria-Control Teams

Afghanistan

Winter activities of the malaria-control demonstration team in Afghanistan included typhus control by means of DDT dusting. About 90,000 persons were dusted in Kabul ; in Kandahar, during the month of January, about 15,000 persons were dusted. There were no indigenous cases of typhus during the winter in Kandahar, and only a couple of cases were reported from Kabul. Afghan authorities, who previously believed that the only effective means of controlling typhus epidemics was vaccination, have been convinced by this demonstration that delousing operations with DDT, properly carried out, can prevent the occurrence of typhus in a community which, year after year, suffered from the ravages of this disease during the winter.

FIG. 5. MALARIA TEAM ACTIVITIES - I

Nurses attached to malaria-control teams also engage in maternal and child health activities. Here one of the nurses from the team based at Malnad (Mysore), India, greets fathers who have brought their infants to the weekly clinic held by the team's nurses in a village school

India

Plague-control measures undertaken, with the assistance of the Mysore Public Health Department, in Shimoga Town by the WHO/UNICEF malaria-control team based at Malnad, Mysore, resulted in the abrupt control of an epidemic of bubonic plague and in the reduction of the rodent flea index to insignificant levels for ten months. The cost of these operations was about $0.035 per capita.

The team in the Malabar district, Madras, reports the great satisfaction of the inhabitants of the Attappaddy region after the spraying of that area. The control of malaria resulted in a increase in the cost of the land in the sprayed area from 20 to 50 Rs. per acre.

FIG. 6. MALARIA TEAM ACTIVITIES - II

A public-health nurse attached to the team working in the Malabar district (Madras), India, examines a child during one of her home visits

Pakistan

Information concerning the activities of the demonstration team which concluded its work on 31 January 1951 has revealed that the cost of malaria- and kala-azar-control operations in Iswarganj Thana came to 8 annas per person per year (about $0.15). It was shown that using DDT at the rate of 150 mg per square foot once a year stops transmission of both infections. It has been calculated that the loss of wages of the adult rural labourer due to malaria would be sufficient to pay for all expenses of the DDT spraying, without taking into account savings on drugs and funerals, or the economic benefits of increased agricultural production.

The reaction of the people to the campaign was studied by canvassing 360 families : 80% of the heads of the families agreed to contribute about 5 annas per capita per year for the continuation of the malaria-control operations, i.e., they would be prepared to pay about 62% of the expenses of the campaign.

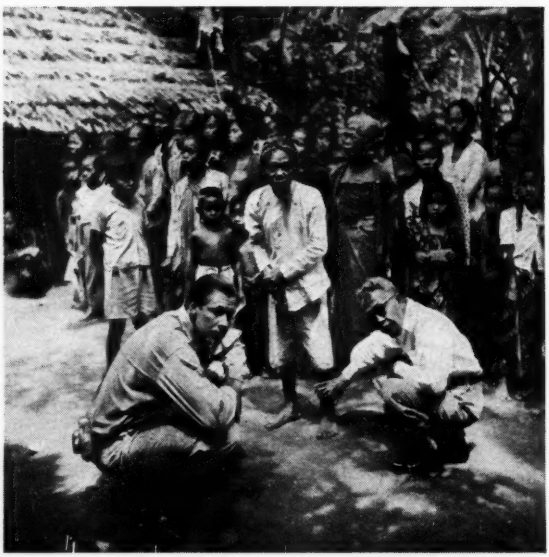
Yaws Control in Indonesia

A report from one of the WHO/UNICEF advisers in the yaws (framboesia)-elimination programme in Indonesia [1] gives a description of how the team actually works

[1] *Chron. World Hlth Org.* 1950, 4, 193 ; 1951, 5, 62, 172

" in the field ". A survey group of three male nurses, or " mantris ", goes first to each village and, with the aid of the village headman and secretary, inspects all the inhabitants and diagnoses and registers the cases of yaws. As the villagers file past a table at which the mantris are seated, one of the mantris inspects and makes the diagnoses while another records the names of those who suffer from yaws. The third mantri stands by to relieve

FIG. 7. YAWS CONTROL IN INDONESIA - I



Inhabitants of a village in Indonesia are examined by Dr. T. Guthe (left), Chief of the Venereal Disease Section at WHO Headquarters, and Dr. R. Kodijat (right), national director of the Indonesian treponematoses-control programme

either of the others ; all take turns at performing the two tasks. About 750 persons can be observed, diagnosed, and registered daily by the survey team.

On the third day the rest of the team arrives—the supervising doctor, or team leader, and four nurses. One of the original three mantris is retained, making a total of five. The team now works at two tables : at the first, or checking, table sit the village headman, the village secretary, and the mantri retained from the survey team, who helps identify the persons previously observed by his colleagues and himself ; at the second table are the doctor and a secretary. The doctor confirms the diagnoses, the cases are registered, and the patients then proceed to the injection room.

In the injection room, penicillin is administered at the rate of about one patient per minute. Adults are given 4 ml (1,200,000 units) ; children, 2 ml (600,000 units) ; and babies, 1 ml (300,000 units). A 10-ml syringe and multiple needles are used, and great care is taken to make sure that the equipment is properly sterilized and that each needle is used only once before being returned to the sterilizer.

A week after the first injections, the team returns to give follow-up treatment and to administer penicillin to patients who might have been missed previously.

Observation of the results of treatment over a one-month period have indicated that, in about 500 cases given two-shot treatment, 97% of the cases were cured of surface symptoms or improved (67% cured and 30% improved) ; in an equal number of cases given one-shot treatment, about 95% were cured or improved, in about the same proportion.

FIG. 8. YAWS CONTROL IN INDONESIA - II

The lesions on the face of this child from South Borneo are an evident sign of framboesia

The number of persons inspected per month has now reached more than 80,000 ; the number treated, 15,000. More than 700,000 persons have been examined and more than 150,000 treated since the beginning of the campaign. The WHO senior adviser, Professor C. M. Hasselmann, and the national director of the programme, Dr. R. Kodijat, have expressed satisfaction at the progress made in the four areas where activities are now in progress—in Java (provinces of Djakarta, Jogjakarta, and Sourabaya) and in Borneo. Satisfaction has also been expressed by the director of the UNICEF Far East Headquarters, who has stated that " no other programme undertaken has shown more results for the money than this one in the alleviation of suffering in children ".

Biological Standardization

Androsterone

The international standard preparation of androsterone will be withdrawn when the present stock becomes exhausted. The WHO Expert Committee on Biological Standardization, after careful consideration, has decided that it is no longer necessary to

provide an international biological standard of androsterone for the assay of therapeutic preparations.

Anti-A and anti-B blood-grouping sera international standards

International standards have been established for anti-A and anti-B agglutinating sera. Samples of these blood-grouping sera may be obtained on application to the national control centre appointed in each country for the distribution and maintenance of WHO international standards.

Antibiotics

International standards already exist for penicillin and streptomycin and will shortly be established for dihydrostreptomycin, aureomycin, and terramycin. Reference preparations for chloramphenicol and bacitracin are also in the course of preparation.

In addition, the WHO Expert Committee on Biological Standardization considers it desirable to form a collection of specimens of new antibiotics the clinical and scientific value of which has been described in the medical and technical press. Samples of such preparations could thus be made available for comparison and exchange of information among interested research workers. WHO invites scientific workers to contribute specimens of their antibiotics to this collection, which it will hold for international distribution at the National Institute for Medical Research, Mill Hill, London.